

11-13-00

A

PTO/SB/05 (08-00)

Approved for use through 10/31/2002. OMB 0651-0032

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Please type a plus sign (+) inside this box



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

UTILITY
PATENT APPLICATION
TRANSMITTAL

(Only for new nonprovisional applications under 37 CFR 1.53(b))

Attorney Docket No. CON1350-011B

First Inventor Brown et al.

Title SYSTEM AND METHOD FOR STATEMENT PRESENTATION

Express Mail Label No. EL622262565US

APPLICATION ELEMENTS

See MPEP chapter 600 concerning utility patent application contents.

1. ☒ Fee Transmittal Form (e.g., PTO/SB/17)
(Submit an original and a duplicate for fee processing)
2. ☐ Applicant claims small entity status.
See 37 CFR 1.27.
3. ☒ Specification [Total Pages 40]
(preferred arrangement set forth below)
- Descriptive title of the invention
 - Cross Reference to Related Applications
 - Statement Regarding Fed sponsored R & D
 - Reference to sequence listing, a table, or a computer program listing appendix
 - Background of the Invention
 - Brief Summary of the Invention
 - Brief Description of the Drawings (if filed)
 - Detailed Description
 - Claim(s)
 - Abstract of the Disclosure
4. ☒ Drawing(s) (35 U.S.C. 113) [Total Sheets 11]
5. Oath or Declaration [Total Pages 3]
- a. ☒ Newly executed (original or copy)
Copy from a prior application (37 CFR 1.63 (d))
b. ☐ (for continuation/divisional with Box 17 completed)
- ☐ DELETION OF INVENTOR(S)
Signed statement attached deleting inventor(s)
named in the prior application, see 37 CFR 1.63(d)(2) and 1.33(b).
6. ☐ Application Data Sheet. See 37 CFR 1.76

ADDRESS TO:

Assistant Commissioner for Patents
Box Patent Application
Washington, DC 20231

7. ☐ CD-ROM or CD-R in duplicate, large table or Computer Program (Appendix)
8. Nucleotide and/or Amino Acid Sequence Submission (if applicable, all necessary)
- a. ☐ Computer Readable Form (CRF)
- b. Specification Sequence Listing on:
- i. ☐ CD-ROM or CD-R (2 copies); or
 - ii. ☐ paper
- c. ☐ Statements verifying identity of above copies

ACCOMPANYING APPLICATION PARTS

9. ☐ Assignment Papers (cover sheet & document(s))
10. ☐ 37 CFR 3.73(b) Statement (when there is an assignee) ☐ Power of Attorney
11. ☐ English Translation Document (if applicable)
12. ☒ Information Disclosure Statement (IDS)/PTO-1449 ☒ Copies of IDS Citations
13. ☐ Preliminary Amendment
14. ☒ Return Receipt Postcard (MPEP 503) (Should be specifically itemized)
15. ☐ Certified Copy of Priority Document(s) (if foreign priority is claimed)
16. ☐ Other

17. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in a preliminary amendment, or in an Application Data Sheet under 37 CFR 1.76:

☐ Continuation ☐ Divisional ☐ Continuation-in-part (CIP)

of prior application No. _____

Prior application information:

Examiner _____

Group/ Art Unit: _____

For CONTINUATION OR DIVISIONAL APPS only: The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 6b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.

18 CORRESPONDENCE ADDRESS

☐ Customer Number or Bar Code Label

(Insert Customer Number or Bar Code Label here)

or



Correspondence address below

Name

08698

PATENT TRADEMARK OFFICE

Address

City

State

Zip Code

Country

Telephone

Fax

Name (Print/Type)

JEFFREY S. STANDLEY

Registration No. (Attorney/Agent)

34,021

Signature

Date

November 10 2000

Burden Hour Statement This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Box Patent Application, Washington, DC 20231

FEE TRANSMITTAL for FY 2000

Patent fees are subject to annual revision

TOTAL AMOUNT OF PAYMENT (\$) 710.00

Complete if Known

Application Number
Filing Date November 10, 2000
First Named Inventor Brown et al.
Examiner Name
Group Art Unit
Attorney Docket No. CON1350-011B

METHOD OF PAYMENT (check one)

1. ☒ The Commissioner is hereby authorized to charge indicated fees and credit any overpayments to.

Deposit Account Number 19-4076
Deposit Account Name

- ☒ Charge Any Additional Fee Required Under 37 CFR 1.16 and 1.17
☐ Applicant claims small entity status. See 37 CFR 1.27

2. ☒ Payment Enclosed:

☒ Check ☐ Credit card ☐ Money Order ☐ Other

FEE CALCULATION

1. BASIC FILING FEE

Large Entity	Small Entity	Fee Code	Fee (\$)	Fee Code	Fee (\$)	Fee Description	Fee Paid
		101	710	201	355	Utility filing fee	710.00
		106	310	206	155	Design filing fee	
		107	480	207	240	Plant filing fee	
		108	690	208	345	Reissue filing fee	
		114	150	214	75	Provisional filing fee	

SUBTOTAL (1) (\$) 710.00

2. EXTRA CLAIM FEES

Total Claims	Extra Claims	Fee from below	Fee Paid
	-20 **	x	=
Independent Claims	-3 **	x	=
Multiple Dependent			=

** or number previously paid, if greater, For Reissues, see below

Large Entity	Small Entity	Fee Code	Fee (\$)	Fee Code	Fee (\$)	Fee Description
		103	18	203	9	Claims in excess of 20
		102	78	202	39	Independent claims in excess of 3
		104	260	204	130	Multiple dependent claims, if not paid
		109	78	209	39	** Reissue independent claims over original patent
		110	18	210	9	** Reissue claims in excess of 20 and over original patent

SUBTOTAL (2) (\$) 0.00

FEE CALCULATION (continued)

3. ADDITIONAL FEES

Large Entity	Small Entity	Fee Code	Fee (\$)	Fee Code	Fee (\$)	Fee Description	Fee Paid
		105	130	205	65	Surcharge - late filing fee or oath	
		127	50	227	25	Surcharge - late provisional filing fee or cover sheet	
		139	130	139	130	Non-English specification	
		147	2520	147	2520	For filing a request for ex parte reexamination	
		112	920	112	920	Requesting publication of SIR prior to Examiner Action	
		113	1840	113	1840	Requesting publication of SIR after Examiner Action	
		115	110	215	55	Extension for reply within first month	
		116	380	216	190	Extension for reply within second month	
		117	870	217	435	Extension for reply within third month	
		118	1360	218	680	Extension for reply within fourth month	
		128	1850	228	925	Extension for reply within fifth month	
		119	300	219	150	Notice of Appeal	
		120	300	220	150	Filing a brief in support of an appeal	
		121	260	221	130	Request for oral hearing	
		138	1510	138	1510	Petition to institute a public use proceeding	
		140	110	240	55	Petition to revive - unavoidable	
		141	1210	241	605	Petition to revive - unintentional	
		142	1210	242	605	Utility issue fee (or reissue)	
		143	430	243	215	Design issue fee	
		144	580	244	290	Plant issue fee	
		122	130	122	130	Petitions to the Commissioner	
		123	50	123	50	Petitions related to provisional applications	
		126	240	126	240	Submission of Information Disclosure Stmt	
		581	40	581	40	Recording each patent assignment per property (times number of properties)	
		146	690	246	345	Filing a submission after final rejection (37 CFR Section 1.129(a))	
		149	690	249	345	For each additional invention to be examined (37 CFR Section 1.129(b))	
		179	710	279	355	Request for Continued Examination (RCE)	
		169	900	169	900	Request for expedited examination of a design application	

Other fee (specify):

* Reduced by Basic Filing Fee Paid

SUBTOTAL (3) (\$) 0.00

SUBMITTED BY

Name (Print/Type) Jeffrey S. Standley Registration No (Attorney/Agent) 34,021 Telephone (614) 792-5555
Signature Date November 10, 2000

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

APPLICATION FOR UNITED STATES LETTERS PATENT
FOR
SYSTEM AND METHOD FOR STATEMENT PRESENTATION

Inventor: Matthew Brown
Marc Jazvac

Assignee: Convergys Information Management Group Inc.
Cincinnati, Ohio

Attorneys: Standley & Gilcrest LLP
Attn.: Jeffrey S. Standley
495 Metro Place South
Suite 210
Dublin, Ohio 43017
Phone: (614) 792-5555

SYSTEM AND METHOD FOR STATEMENT PRESENTATION

Inventor: Matthew Brown
Marc Jazvac

BACKGROUND OF THE INVENTION

Field of the Invention

The present invention relates generally to production of billing statements. Particularly, the present invention relates the production of billing statements for different services and the production of a single billing statement for telephone, cable, and data services.

Description of Related Art

Service providers such as local telephone service providers, long distance telephone service providers, and cable television service providers typically produce and send their customers monthly billing statements that reflect charges based on transactions such as telephone calls, pay per view requests, etc. that occurred during the month. Typically, separate statements are produced and sent for each service because each service is subject to different messages, notices, inserts, taxes, collection procedures, etc. Furthermore, there are often physical limitations with respect to the printed bill such that all of the information the service provider would like to print on the bill cannot be accommodated. Current statement production systems impose further limitations by providing few formatting and layout options to service providers. Service providers today need flexibility in defining the format and layout options for billing

statements and further need the ability to generate one billing statement for accounts having any combination of telephone, cable, and/or data services.

SUMMARY OF THE INVENTION

The present invention is a system and method for producing (e.g., printing or displaying) statements that have charges for one or more service categories. The present invention enables a service provider to define which services appear on what statements for any given customer. The present invention is directed to Statement Presentation which refers to the collating, grouping, summarizing, and describing of transactions for a statement. The present invention allows a service provider to group, summarize, and order like statement transactions for a particular service category (e.g., telephone service, cable service, and data service). Statement transactions are defined generally to be different charges for various activities or tasks such as payments and adjustments, recurring service charges, one time charges for installations, deposits, etc., usage of telephony, cable, or data services, taxes, etc.) for one or more occurrences. An occurrence on a statement relates to a telephone line that has an associated telephone number or an equipment outlet that has an associated equipment outlet number (preferably, 5 digits). The equipment outlet number defines which addressable services are associated with which equipment and are assigned to a particular outlet.

The present invention subdivides statement transactions into several layers for presentation on a statement. At the highest layer are four Segments: Summary, Itemization, Usage Detail, and Tax. These Segments are subdivided into User-Defined

Sections, which are groups of a lower presentation layer. These lower presentation layers vary by the Segment type. The presentation layer for the Summary Segment is the Summary Line. The presentation layer for the Itemization and Usage Detail Segments consists of presentation Occurrences, which are subdivided by Statement Presentation Codes. The presentation layer for the Tax Segment is the Tax Statement Line.

The present invention uses Statement Presentation Codes to determine how transactions are grouped and produced (e.g., printed or displayed) on a statement. Services, pay per view (PPV) events, payments and adjustments, recurring service charges, one-time charges, usage, etc. are assigned a Statement Presentation Code. Each Statement Presentation Code has a group of attributes that defines how information related to the code may be printed or viewed. In a preferred embodiment of the present invention, the Statement Presentation Code attributes include a Section Code that determines where on the statement to print the Statement Presentation Code, a Summary Line to which transaction amounts are added, and an indicator to determine whether the Statement Presentation Code should be sorted within an occurrence.

The Statement Presentation Sections of the present invention provide a means for grouping Statement Presentation Codes. Certain transactions, such as payments, that are not specific to a Category of Service may be grouped into one or more Section Codes as well. Definition of Sections and Statement Presentation Codes in accordance with the present invention allow a service provider to group transactions by category, group some transactions by category and others in sections of blended or no

categories, and group 'cross category' service packages in one section while grouping category specific transactions in their own sections.

Another feature of the present invention is the ability to produce summaries (e.g., by printing or displaying) of various services that a service provider may offer such as basic, non-basic, long distance, and calling card telephony services and basic, expanded basic, premium channel, and pay per view cable services. The Statement Presentation Codes of the present invention support the grouping and summarizing of the various services. Because of the flexibility in producing statements, a service provider may offer its customers the option of deciding which services are billed on a particular statement. Customers may choose to have all services billed on one statement or they may choose to have some services billed on one statement and other services billed on a different statement.

Another feature of the present invention is the ability to produce statement export files that may be used by a print vendor for printing and sending statements to a service provider's customers. In accordance with a preferred embodiment of the present invention a single, statement export file may be produced for telephone, cable, and data services or any combination of the services on one bill.

BRIEF DESCRIPTION OF THE DRAWING(S)

Fig. 1 is a block diagram of a statement presentation in accordance with a preferred embodiment of the present invention; and

Figs. 2-32 are examples of screens in accordance with a preferred embodiment of the present invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT(S)

Referring to Fig. 1, the conceptual layout of a billing statement in accordance with a preferred embodiment of the present invention is shown. In accordance with the present invention, statement transactions are subdivided into several layers for presentation on a statement. The highest layer—Layer 1 100—is divided into four segments: Summary 104, Itemization 108, Usage Detail 122, and Tax 136. These segments are subdivided into user-defined sections 106, 110, 112, 124, 126, 138 that make up the lower layers 102 of the statement presentation. The user-defined sections vary by the segment type and are comprised of a type of line. The user-defined section for the Summary segment 104 is the Summary Line section 106. The user-defined section for the Itemization 108 and Usage Detail 122 segments is Occurrence Line 110, 112, 124, 126. Each Occurrence Line 110, 112, 124, 126 is further subdivided by Statement Presentation Codes 114, 116, 118, 120, 128, 130, 132, 134. The user-defined section for the Tax 136 segment is Tax Statement Line 138.

Preferably, the Statement Presentation Codes 114, 116, 118, 120, 128, 130, 132, 134 dictate how transactions are grouped and presented in each segment on the statement. Preferably, services, pay per view events, payments and adjustments, recurring service charges, one-time charges, usage, etc. are assigned a Statement Presentation Code. The attributes of Statement Presentation Codes include, among other things:

Section Code in which to print the Statement Presentation Code;

Summary Line to add the amount of the transactions to; and

Indication if the Statement Presentation Code should be sorted within the Service Occurrence.

Statement Presentation sections provide a means to group together Statement Presentation Codes. The codes allow transactions to be grouped by category of service, or combinations of categories. Certain transactions, such as payments, that are not specific to a category of service may be grouped into one or more section codes as well. Use and set up of Sections and Statement Presentation Codes allow a service provider to:

- Group all transactions by category;

- Group some transactions by category and others in sections of blended or no categories; and

- Group "cross category" service packages in one section, while grouping category specific transactions in their own sections.

Preferably, transactions may be separated by a Carrier Code. Services that can be processed for a carrier may refer to Statement Presentation Codes that in turn refer to one or more sections unique to the Carrier Code. Usage Attributes (including Statement Presentation Code) are defined by a carrier, so referring to Statement Presentation Codes unique to the Carrier is easy. Preferably, service codes are not defined by a carrier. Therefore, the set up and use of services unique to a Carrier may be dictated by operational methods and procedures.

A statement in accordance with the present invention may include two or more Occurrences (telephone lines or equipment outlets) that have services that refer to the same Statement Presentation Codes (e.g., recurring charges). In some instances, it

may be desirable to present all transactions for each telephone line separately. The present invention accommodates this requirement by sorting/processing the transactions by occurrence (telephone line or equipment outlet), prior to sorting them by Statement Presentation Code. However, if some or all of the transactions for all telephone lines are to be combined and presented by Statement Presentation Code, the transactions may be sorted by Statement Presentation Code, and then by telephone line within the Statement Presentation Code. The present invention therefore, supports various methods of sorting. As a result of the flexibility in grouping services, a service provider may allow its customers to decide whether all services are billed on one statement or on multiple statements.

Statement Attribute

Statement Attribute Codes may be assigned to services, adjustment codes, and pay per view (PPV) events. The Statement Attribute Code defines what services are grouped together and in some cases, how the statement is paid. For example, each statement produced may have a statement attribute. If that statement attribute is assigned a method of payment of direct debit, then the amount of that statement may be automatically drafted. Referring to Fig. 2, the System Parameter Maintenance, Statement Presentation screen presents a service provider with options for defining statement attributes. At the screen in Fig. 2, the user may type '1' in the '?' column next to Statement Attributes and Press ENTER to begin the process of defining statement attributes.

Referring to Fig. 3, the Statement Attribute Code Maintenance screen presents a service provider with options for completing the process of defining statement attributes.

The user may type '2' to change a statement attribute code, type '3' to copy a statement attribute code, or type '4' to delete a statement attribute code. The user also has the option of selecting F9 to add a new statement attribute code. Upon selecting F9, the user may be referred to the Statement Attribute Code Maintenance 1 screen in Fig. 4. Referring to Fig. 4, the user may type up to a 3-character code in the STATEMENT ATTRIBUTE CODE field and a description up to 35 characters in the STATEMENT ATTRIBUTE DESC field. Next, the user may type a value for the STATEMENT THRESHOLD NUMBER OF LINES field. This value is the maximum number of lines that will print per statement and per page. The user may type one of the following in the INCLUDE THE FOLLOWING IN LINE COUNT fields for Summary, Taxes, Itemization, Usage Detail, Billing Message, and Statement Text:

'Y' to include this particular statement component in the threshold number of lines count per statement and per page; or

'N' to not include this particular statement component in the threshold number of lines count per statement and per page.

Preferably, if Billing Message and Statement Text are not included in the number of lines count and a threshold determined at print time has already been reached, the billing messages and statement text are not printed on the statement. The user may type one of the following in the OUTPUT TAXES BY SERVICE CATEGORY field:

'Y' to print taxes for all services as individual line items on the statement; or

'N' to print taxes for all services as one line item on the statement.

The user may type one of the following in the INCLUDE MEMO ACCOUNTS field:

'Y' to produce a statement if the amount of the statement meets the requirements for sending a statement; or

'N' to indicate that a statement should not be sent, regardless of the A/R balance.

The user may type one of the following in the CHECK DIGIT ROUTINE field:

'A' for deviation of modulus 10; or

'X' for standard modulus 10.

The user may type one of the following in the LOCK BOX SCAN LINE ROUTINE field:

'A' = 6-digit amount and 5-character company identifier;

'C' = 7-digit amount and 4-character company identifier; or

'X' = 7-digit amount and 5-character company identifier.

Preferably, the formats have the following characteristics.

Table 1

<i>A Format</i>	<i>C Format</i>	<i>X Format</i>	<i>All</i>
<u>Length</u> 5 9 1 1 6	<u>Length</u> 4 9 1 1 7	<u>Length</u> 5 9 1 1 7	<u>Format Fields</u> Company Identifier Cust. Acct# Acct# Check Digit Amt Check Digit Amount \$s
Positions 2-29 within the Scan Line field.	Positions 3-30 within the Scan Line field.	Positions 1-29 within the Scan Line field.	

The user may type a code in the PREVIOUS BALANCE STateMenT PRESENTATION CODE field. The user has the option of assigning a Statement Presentation Code to previous balances to indicate where the previous balance will be grouped and displayed on a statement. The user may type one of the following in the BUCKET NUMBER TO START FROM WHEN CALCULATING PAST DUE AMOUNT field:

Table 2

'1' = Current	'3' = 31-60	'5' = 91-120
'2' = 01-30	'4' = 61-90	'6' = 121+

The amount owed in the bucket typed in this field is totaled with the Accounts Receivable (A/R) from subsequent buckets. This total is compared to an amount in the LATE FEE MINIMUM CHARGE field located on a Late Fee Scheme Maintenance screen. If the calculated total is greater, then the difference between the two amounts is displayed in the LATE BALANCE AMOUNT field in record type 'S' of a statement tape file.

Preferably, the user may page down to display additional screens. The following actions pertain to customers with a credit balance (or A/R balance < 0). Referring to Fig. 5, the Statement Attribute Maintenance 2 screen provides additional options for defining statement attributes. The user may type one of the following in the PRINT IF THE CUSTOMER'S STATUS INDICATES TO PRINT A CREDIT BILL field:

'Y' to print a credit statement if the customer's status indicates that credit statements should be printed; or

'N' to not print a credit statement regardless of what the customer's status indicates for credit statements.

If 'Y' is answered to this statement, then a credit message may be typed on the message line in this category. If 'N' is answered, then the credit message field may be left blank. Next, the user may type one of the following in the PRINT A FINAL BILL REGARDLESS OF THE CUSTOMER'S STATUS field:

'Y' to print a final credit bill for a customer whose status indicates that credit balance statements should not be sent; or

'N' to use the customer's status code to indicate whether a credit balance statement should be sent.

If 'Y' is answered to this statement, then the user may type a message up to 37 characters in the credit MESSAGE field. For example, the message may read "Credit Balance - Do Not Pay." If 'N' is answered, then this field may be left blank.

The following actions pertain to customers with a debit balance (or A/R balance \geq 0). The user may type a dollar amount in the DO NOT PRINT STATEMENTS WITH A DEBIT BALANCE LESS THAN field. Customers with an A/R balance less than this amount but greater than zero, preferably, will not have statements produced unless they have other than normal transactions that indicate printing a statement. For example, this field may be set so that the system does not print statements for customers who owe between 0.00 and 5.00 dollars.

The user may type one of the following in the PRINT A FINAL BILL, REGARDLESS OF THE DEBIT BALANCE field:

'Y' to disregard debit restrictions set up previously and print a final debit balance statement; or

'N' to follow the requirements set up previously.

The following actions pertain to customers who do not meet the requirements set up previously to have a statement produced. Statements may be sent if other than normal transactions occurred. Other than normal transactions may include PPV charges, prorates from work order transactions, rate increases, and adjustment codes that may be flagged in other parts of the system as other than normal.

The user may type one of the following in the SHOULD BE PRODUCED FOR ALL CUSTOMERS field:

'Y' to produce a statement for all customers, regardless of balance, if they have an other than normal transaction; or

'N' to not produce a statement and follow the guidelines set forth previously.

For example, if debit bills are not printed unless the balance owed is greater than \$5, then a customer who has a PPV transaction and owes a balance of \$3 will have a statement produced if 'Y' is the response to the question. Preferably, if the response is 'N,' then a statement is not produced. If the same customer had a balance of \$5.01, a statement is produced regardless of this field because debit balance statements are printed when greater than or equal to \$5.

The user may type one of the following in the SHOULD BE PRODUCED FOR NON-MONTHLY BILL MODE CUSTOMERS ONLY field:

'Y' to produce a statement for non-monthly bill mode customers, regardless of balance, if they have an other than normal transaction; or

'N' to not produce a statement and follow the guidelines set forth in the earlier steps.

The user may type a message up to 52 characters in the MESSAGE field. The message prints on statements when other than normal transactions occur and when the flags set previously indicate to produce statements for these customers.

Preferably, the user may page down to display additional screens. Referring to Fig. 6, in the Statement Attribute Maintenance 3 screen, the user may type a message up to 35 characters in each of the PREVIOUS MONTH'S BALANCE fields for a

message that is to display for the previous month's balance. For example, the FIRST STATEMENT might have "Starting Balance" or "Opening Balance." The message for SUBSEQUENT STATEMENTS might be "Previous Balance" or "Amount of Last Bill." The user may type a message up to 35 characters in the PAYMENTS fields. These messages describe the type of payment. The FULL PAYMENT field indicates a payment made in full. The message "Thank you for your prompt payment" may be used. The PARTIAL PAYMENT field indicates a partial payment. The message "Payment Received" may be used. The DEPOSIT PAYMENT field prints for payments applied toward deposits.

The user may type a description up to 35 characters in the SERVICES WITHOUT A DESCRIPTION field if a service without a description is encountered. The user may type up to 35 characters in the MERGED PRORATE DESCRIPTION fields. These messages describe the prorate. The FIRST STATEMENT field indicates prorated charges for the first statement a customer receives. The SUBSEQUENT STATEMENTS field indicates the prorate description that displays on any statements subsequent to the first statement in which prorates occur.

Preferably, the user may page down to display additional screens. Referring to Fig. 7, in the Statement Attribute Maintenance 4 screen, the user may type a message up to 60 characters in the MESSAGE TO PRINT IF STATEMENTS ARE SENT EACH MONTH field to cause statements to be produced for bank draft (direct debit) customers. This message displays between the standard billing message and the statement detail. The user may also leave this field blank so statements are not produced for bank draft (direct debit) customers. The user may type a message up to

60 characters in the PRE-NOTE STATUS field. If the method of payment is set up for a customer with the prenote flag set to 'Y,' the prenote message prints on the statement instead of the "Do Not Send Payment" message.

The user may type a message up to 60 characters in the MESSAGE TO PRINT IF STATEMENTS ARE NOT SENT MONTHLY AND AN OTHER THAN NORMAL TRANSACTION OCCURS field to produce a statement if an other-than-normal transaction occurs for bank draft (direct debit) customers. The user may also leave this field blank so a statement is not produced even if an other-than-normal transaction occurs for bank draft (direct debit) customers.

The user may type the maximum dollar amount a customer can be drafted in the MAXIMUM AMOUNT ALLOWED field. If a customer's balance exceeds this amount, then that customer is not drafted and a statement is sent containing the message that is specified for this condition. The user may type a message up to 60 characters in the MESSAGE TO PRINT IF MAXIMUM AMOUNT IS EXCEEDED field. The user may type the minimum dollar amount for which a customer can be drafted in the MINIMUM AMOUNT ALLOWED field. If a customer's balance is less than this amount, then that customer is not drafted and a statement is sent containing the message that is specified for this condition. The user may type the MESSAGE TO PRINT IF MINIMUM AMOUNT IS NOT MET. If the maximum or minimum conditions are met, preferably, a billing program prints a statement for the customer with the message indicated, regardless of the regular bank draft or change bank draft messages. Preferably, the maximum/minimum message prints in the same place as the standard bank draft message, between the standard billing message and the statement detail.

Statement Attribute Assignment

A statement attribute may be assigned to a service category and/or a combination of service categories. For example, a service category combination consisting of cable and telephone may be assigned to the same statement attribute so that they appear together on the same statement. The combinations may be comprised from the following service categories:

C=Cable

D=High Speed Data

L=Calling Cards

S=Special Circuits

T=Telephone

Referring to Fig. 8, the Statement Attribute Assignment Maintenance screen allows a service provider to assign service categories to statement attributes. The user may type a code in the STateMenT ATTRibute code field to assign to the Service Category Combo as listed.

Statement Presentation Code

A Statement Presentation Code may be assigned to services, adjustments, and PPV events to indicate where they should be grouped on a statement. The Statement Presentation Code may be up to 3 characters, including spaces. This code defines how information is displayed on the statement and a ledger. Referring to Fig. 9, the Statement Presentation Code Maintenance screen provides options for a service provider to define Statement Presentation Codes. Preferably, the user has the following options:

'2' to change a statement presentation code;

'3' to copy a statement presentation code;

'4' to delete a statement presentation code;

'P' to define paragraph details; and

'F9' to add a Statement Presentation Code.

If the user elects to add a code, the user may type a 3-character code in the PRESENTATION CODE field. Codes may be based on letters, digits, or a combination of letters and digits.

Referring to Fig. 10, the Statement Presentation Code screen provides options so a service provider can further define paragraph details for a statement. The user may type a message up to 60-characters for a HEADER. This header prints on the statement. The user may type a message up to 60-characters for a SUBTOTAL. This subtotal prints on the statement. The user may type a message up to 60-characters for a FOOTER. This footer prints on the statement.

The user may further specify a section code in the SECTION CODE field. The attributes defined for this Statement Presentation Code print in the section that is assigned using this field. The user may type a value for the SUMMARY LINE field. The user may further specify a sorting method by typing one of the following in the SORT WITHIN OCCURRENCE field:

'Y' to sort by occurrence; or

'N' to define what service category and sequence number to sort by.

To print all transactions for each occurrence separately on a statement, the user may type 'Y' to sort by occurrence. To print transactions for all occurrences combined, the

user may type 'N' to override sorting by occurrence. If 'N' was typed, then the user may type the service category and sequence to sort by in the IF NO, SORT OCCURRENCE CTG/SEQ# fields respectively.

Next, the user may type one of the following in the PRINT USAGE DETAIL FLAG field:

'Y' to print telephone usage details; or

'N' to not print telephone usage details.

The user may type one of the following in the DISCOUNT/RETAIL FOR USAGE field:

'D' to print the discounted rate for that service on the statement; or

'R' to print the retail rate for that service on the statement.

In the STateMenT PRESENTATION FOR PRORATES field, the user may type the Statement Presentation Code under which the prorates of the current presentation code may list. For example, six services in two different presentation codes may be prorated. The user may define both groups to point to Statement Presentation code 300=Prorated Programming. The description associated with presentation code 300 displays on the statement and ledger. The user may type a font code to assign to the HEADER portion of the statement, the DETAIL portion of the statement, and the FOOTER portion of the statement. The user may specify the offset number of spaces from the left to apply to DESCRIPTIONS. This value defines the indenting to be used to print descriptions on the statement. The user may specify the number of lines to skip BEFORE HEADER and the offset number of spaces from the right to apply to AMOUNTS. This value defines the indenting to be used to print amounts on the statement. Finally, the user may type the number of lines to skip AFTER FOOTER.

M-Matrix	The 3-line BILLING DESCRIPTION from the Matrix Master.	Two Pay Package. A monthly cable savings of \$2.90.
P-Paragraph	The 3 CHAR description from the Rate Master for all services in the group prints between the intro and exit lines.	Monthly service: BAS, HBO, SHO We hope you enjoy your service.
S-Service	The SERVICE NAME description from the Rate Master. Individual rates are displayed next to each service.	Basic \$19.95 HBO \$9.50 Showtime 9.50
Q-Method	The SHORT NAME description from the Rate Master for all services in the group prints between the intro and exit lines.	Monthly service: \$32.95 Basic, HBO, Showtime We hope you enjoy your service.
R-Method	The SERVICE NAME description from the Rate Master and any auxiliaries coded to merge their descriptions print between the intro and/or exit lines, one service per line. Three discount summary lines print if discounts apply; one alternate summary line prints if no discounting applies.	Your Monthly service includes: Basic HBO Showtime List Price of Services Package Discount You Pay Only Your Monthly service includes: Basic HBO Showtime Total Price

The Ledger Display preferably has the following information.

Table 4

Bill Description	Fields Used to Display on Ledger	EXAMPLE
G-Grouping	All items in that group are added into one line item and print the 'Presentation Description' defined on the ledger.	Basic Services \$26.50 Pay Service \$18.00 NOTE: <i>All basic services are grouped together and all pay services are grouped together.</i>
M-Matrix	First line of the BILLING DESCRIPTION from the Matrix Master.	Two Pay Package or Monthly Service

P-Paragraph	First line of the BILLING DESCRIPTION from the Matrix Master.	Two Pay Package or Monthly Service
S-Service	First line of the SERVICE NAME description from the Rate Master. Individual rates are displayed next to each service.	Basic \$19.95 HBO \$9.50 Showtime \$9.50
Q-Method	The PRESENTATION CODE description to display in the ledger unless an 'M' is typed in position 50 of the '98•BILL' Control File. In that case, the 1st line of the BILLING DESCRIPTION from the Matrix Master displays.	Two Pay Package or Monthly Service
R-Method	The PRESENTATION CODE description to display in the ledger unless an 'M' is typed in position 50 of the '98•BILL' Control File. In that case, the 1st line of the BILLING DESCRIPTION from the Matrix Master displays.	Two Pay Package or Monthly Service

Next, the user may specify one of the following in the PRINT ZERO RATED PRIMARY SERVICES field:

'Y' to print the primary service selected even if it has a zero rate; or

'N' not to print the primary service if it has a zero rate.

The user may type one of the following in the ITEMIZE ADDITIONAL OUTLET CHARGES? field:

'Y' to itemize the additional outlet charges. The statement indicates the charge for additional outlets and the number of additional outlets; or

'N' not to itemize the additional outlet charges.

[illegible]

'N' to not print additional outlet rates for premium services.

Total	26.50
-------	-------

Total	26.50
-------	-------

Preferably, if this flag is 'N' and the customer has additional occurrences of services, then the service dollars listed in the paragraph will not add up to the total as additional occurrences are not listed.

The user may specify one of the following in the INCLUDE A LA CARTE RATES IN THE PARAGRAPH field:

'Y' to print the rates from the rate master for the service; or

'N' to not print the rates from the rate master.

If 'Y' was typed, then the user may type a character in an INSERTION CHARACTER TO USE TO JOIN THE RATE TO THE SHORT DESCRIPTION field. For example, '@' may be used.

The user may type one of the following in the PRINT SUMMARY LINES AFTER THE PARAGRAPH EXIT LINE? field:

'Y' to print the summary lines typed for this group after the exit line; or

'N' to not print the summary lines for this group after the exit line.

Preferably, the user may page down to display additional screens. Referring to Fig. 12, the Statement Presentation Code Maintenance screen 2 provides a service provider with additional options for defining and maintaining Statement Presentation Codes. The user may type a value the NUMBER OF MATRIX DESCRIPTION LINES TO PRINT field. The matrix description is a maximum of 3 lines. The user may type a description up to 35 characters in the INTRO LINE field to print as an introduction line to the services listing. The user may type a description up to 35 characters in the EXIT LINE field to print as the exit line to the services listing. The user may type a value in the SUMMARY LINES TO PRINT AFTER THE PARAGRAPH EXIT LINE field. The user

services outside the paragraph. For example, the description may be "ADDITIONAL OUTLETS @."

Statement Font Codes

As a reference for print vendors that print billing statements, font codes may be set up and assigned to Statement Section Codes and Statement Occurrence Lines so the print vendor knows what font attributes to apply to those areas of the statement. For example, Section Code 101 may be used for defining how telephone services print on a statement. To print with bold and italics font attributes, the font code BI may be assigned to bold and italics in the font code description. After supplying the print vendor with a cross-referenced list of the font codes and their definitions, whenever the print vendor encounters the BI font code, the bold and italic font attributes are applied to that section.

Referring to Fig. 14, the Statement Font Code Maintenance screen provides options for defining and maintaining font codes. Preferably, the following options are available. The user may type '4' to delete a statement presentation code and press [F9] to add a new Statement Presentation Code. First, the user may type a 2-character FONT CODE and up to 32-characters for a DESCRIPTION.

Statement Occurrence Line

Referring to Figs. 15 and 16, the Statement Occurrence Line Maintenance and Statement Presentation Occurrence screens provide options for defining and maintaining occurrence lines. Each occurrence corresponds to a telephone line or an equipment outlet. As shown in Fig. 15, the service categories may include Cable Bill, High Speed Data User, Calling Card, Circuit ID, and Phone Bill. Additional service

categories may be defined. The user may select a service category from the screen in Fig. 15 or the user may add a new service category by entering a code in the SERVICE CATEGORY CODE field as shown in Fig. 16.

Referring to Fig. 17, the Statement Presentation Occurrence screen provides further options for defining and maintaining each occurrence. First, the user may type a description up to 60-characters for a HEADER field. This header prints in the itemization segment of the statement. The user may type a description up to 60-characters for a SUBTOTAL. This subtotal prints in the itemization segment of the statement. The user may type a description up to 60-characters for a FOOTER. This footer prints in the itemization segment of the statement. The user may type a description up to 60-characters for a HEADER. This header prints in the usage detail segment of the statement. The user may type a description up to 60-characters for a SUBTOTAL. This subtotal prints in the usage detail segment of the statement. The user may type a value up to 60-characters for a FOOTER. This footer prints in the usage detail segment of the statement. The user may type a font code to assign to the HEADER portion of the statement and the FOOTER portion of the statement. The user may type the offset number of spaces from the left to apply to DESCRIPTIONS. This value defines the indenting used to print descriptions on the statement. The user may type a value for the number of lines to skip BEFORE HEADER. The user may type the offset number of spaces from the right to apply to AMOUNTS. This value defines the indenting used to print amounts on the statement. The user may type a value for the number of lines to skip AFTER FOOTER.

Statement Section Codes

Referring to Fig. 18 and Fig. 19, the Statement Section and Statement Presentation Section screens provide options for defining and maintaining Statement Sections. First, the user may select a 3-digit SECTION CODE from the screen in Fig. 18. The user may also choose to add a new SECTION CODE by selecting the add option of the screen in Fig. 18 and entering a new code in the SECTION CODE field of the screen in Fig. 19.

Referring to Fig. 20, the Statement Presentation Section screen provides options for defining and maintaining presentation information for a Section Code. First, user may type a description up to 60-characters for a HEADER. The user may type a description up to 60-characters for a SUBTOTAL. The user may type a description up to 60-characters for a FOOTER. The user may type a font code to assign to the HEADER portion of the statement and a font code to assign to the FOOTER portion of the statement. The user may type the offset number of spaces from the left to apply to DESCRIPTIONS. This value defines the indenting used to print descriptions on the statement. The user may type the number of lines to skip in the BEFORE HEADER field. The user may type the offset number of spaces from the right to apply to AMOUNTS. This value defines the indenting used to print amounts on the statement. The user may type the number of lines to skip in the AFTER FOOTER field.

Statement Summary Line

Referring to Fig. 21 and 22, the Statement Summary Lines screens provide options for defining and maintaining Summary Lines. The user may select a Summary Line or define a new one. After selecting F9=Add from the screen in Fig. 21, the user proceeds to Fig. 22. Referring to Fig. 22, first, the user may type a 3-digit code in the

SUMmary LINE code field. The user may type a description up to 60-characters in the DESCRIPTION field.

Customer Method of Payment Codes

Customer Method of Payment (MOP) codes specify the types of methods of payment that can be used. Depending on the payment method, this option determines if it is allowed in Counter Cash, if a check number is required, the length of an account number, etc. Referring to Fig. 23, the Method of Payment Maintenance screen provides options for defining and maintaining payment methods for customers. Preferably, the available options are:

- '2' to change a method of payment code;
- '3' to copy a method of payment code;
- '4' to delete a method of payment code; and
- [F9] to add a new method of payment code.

If the user elects to add a new method of payment code, Fig. 24, the Customer Method of Payment Maintenance screen provides options for defining a new method. Referring to Fig. 24, the user may type a 3-digit code in the CUSTOMER METHOD OF PAYMENT CODE field. The user may type up to 35 characters for the DESCRIPTION field. The user may type a code in the PAYMENT CODE CATEGORY field. The user may type a code for the MOP PROCESSING VENDOR field. The METHOD OF PAYMENT ACCount NumBeR REQUIRED inquiry field indicates *Yes if the MOP account number is required and *No if it is not required. Typically, it is required for direct debits and credit cards and is not required for cash, checks, money orders, and gift certificates. The user may type a value for the METHOD OF PAYMENT ACCount

NumBeR VALIDATION field to be used to determine the method used to verify the account number is valid. Preferably, the validation method entered here is used in the Customer Method of Payments screen to validate the account number entered. For example, a Visa credit card number starts with a '4,' Master Card starts with a '5,' and an American Express number starts with a '3'. The system also uses either Modulus 10 or 11, depending on the credit card type, to check the entire account number. The user may type a value for the METHOD OF PAYMENT ACCount MAXIMUM LENGTH field. The account length is used to verify that the account number entered in the Customer Method of Payments screen has the correct number of digits. In the OPeRator field, the user may type one of the following to apply to the number typed in the MAXIMUM LENGTH field:

'EQ' = equal to;

'LT' = less than; or

'LE' = less than or equal to.

The user may type a value in the METHOD OF PAYMENT ACCount MINIMUM LENGTH field. This value is the minimum number of digits the account number occupies. In the OPeRator field, the user may type one of the following to apply to the number typed in the MINIMUM LENGTH field:

'GT' = greater than; or

'GE' = greater than or equal to.

Next, the user enters a value for the DEFAULT STateMenT PReSeNtation CODE field.

The user may type one of the following in the COUNTER CASH ALLOWED field:

'Y' to allow this method of payment to be used in Counter Cash; or

'N' to not allow this MOP to be used in Counter Cash. If set to 'N,' this MOP code does not display in Counter Cash.

The user may type one of the following in the CHECK NUMBER REQUIRED field:

'Y' to require a check number while in Counter Cash when using this MOP; or

'N' to not require a check number while in Counter Cash.

The user may type one of the following in the TRACK HISTORY field:

'Y' to track the history of MOP payments; or

'N' to not track the history of MOP payments.

The user may type one of the following in the PRENOTE REQUIRED field:

'Y' to create a prenote when this MOP code is assigned; or

'N' to not create a prenote for this MOP code.

Maintain Statement Presentation Codes for MOP

Referring to Fig. 25, the Maintain Statement Prsn Code for MOP screen provides options for controlling how split payments are printed on a statement. Preferably, if the default Statement Presentation Code is overridden for a Customer Method of Payment Code and if a different Statement Presentation Code is defined for each service category, a payment that is to be split among two or more different service categories prints as separate line items on the statement. If each service category points to the same Statement Presentation Code, the split payment appears as one line item on the statement. For example, John Doe's statement balance, which includes both Cable and Telephone, is \$100. Fifty dollars (\$50) of the statement is for Cable service and the remaining \$50 is for Telephone service. John Doe sends in one payment for \$100. Two payments of \$50 each (one for Cable and one for Telephone) may be printed on

the statement or one payment of \$100 may be printed on the statement. Preferably, the user has the option of pressing [F9] to assign a Statement Presentation Code to a service category/Accounts Receivable (AR) code. Referring to Fig. 25, the user may type a code in the SeRVice CaTeGory field or may add a new code by selecting F9. Preferably, the AR Code assigned to the service category entered automatically displays in the AR CODE field. Next, the user may type a Statement Presentation Code in the STateMenT PReSeNtation CODE field.

Usage Attributes

The present invention supports the grouping of transactions with Statement Presentation Codes. Accordingly, it supports the grouping of call summary with Statement Presentation Codes defined by a Plan ID and by Usage. Referring to Fig. 26, the Usage Type Maintenance screen provides options for defining and maintaining usage types. The user may type a code in the Usage Types field of the screen in Fig. 26.

Usage Types

Usage Types define the types of usage that are supported (e.g., Intrastate or Interstate Calling Cards, Local Operator Collect calls, etc.) This option may be used to maintain usage types and their carrier attributes. Referring to Fig. 27, the Usage Type Maintenance screen provides options for a defining and maintaining usage types. The user may modify values for an existing usage type or may add a new usage type. Preferably, the user may select [F9] from the screen in Fig. 26 to add a usage type. Referring to Fig. 27, the user may type a 5-character code USAGE TYPE field to add a new usage type. Referring to Fig. 29, the Usage Type Maintenance screen may be

used to further define usage types. The user may type a description of the usage up to 35 characters in the DESCRIPTION field. The user may type a code in the AR CODE field. The user may type a code in the STATEMENT PRESENTATION CODE field. The user may type a code in the TAX GROUP CODE field. The user may type general ledger number to assign to the Usage in the G/L MINOR NumBeR field. The user may type a code in the STateMenT RATE CODE field.

Usage Plans

Usage Plans define the plans to include on the billing statement. For example, Local Direct Dial call may be used, and if defined as a Usage Plan, it is displayed on the bill. This option may be used to maintain these usage plans and their carrier overrides. Referring to Fig. 29, the Usage Plan Maintenance screen preferably, has the option [F9] to add a Usage Plan or an existing Usage Plan may be modified. Referring to Fig. 30, the Usage Plan Maintenance screen, preferably, has options as follows:

'C' to maintain carrier overrides; or

'4' to delete usage plans; and

[F9] to change plans.

The user may type a value up to 6 characters in the PLAN ID field. The user may type a description up to 35 characters in the PLAN DESCRIPTION field. The user may type a code in the STateMent PReSentation field and the user may type a value in the StateMent INDicator field. As explained earlier, the Statement Indicator indicates whether the Statement Presentation Code should be sorted within the Service Occurrence.

Usage Plan - Carrier Override

Usage Plan - Carrier Overrides are used to override the carrier's presentation code. Referring to Fig. 31, preferably, the Usage Plan – Carrier Override screen has the option F9 available to add an override or an existing Usage Plan may be modified. Referring to Fig. 32, the Usage Plan – Carrier Override screen provides additional options for defining Statement Presentation Codes to override the carrier's presentation code. The user may type an identifier in the CARRIER ID field. The user may type a code in the STateMent PRESentation code field. If the user selects F9 to add a new code, Fig. 32, the Usage Plan – Carrier Override screen provides additional options.

Multiple Accounts Receivable (A/R) / Multiple Statements

The present invention supports multiple accounts receivable (A/R) and multiple statements. Customers who subscribe to more than one service category (i.e., cable, high-speed data, and telephone), preferably, have separate A/R records so that information regarding each service category may be tracked. Their accounts receivable aging is tracked for each A/R code/Service Category. Furthermore, one or more statements may be generated for a customer depending on the customer's preference. The ability to generate one statement for customers who subscribe to more than one service represents a significant improvement over the prior art.

Multiple A/R

The present invention tracks accounts receivable aging at the customer/service category/AR code level. Any service category may point to one or more A/R's. Preferably, service categories are defined at the system level. Preferably, AR Codes are user-defined. A service definition preferably includes the service category.

Multiple Statements

With the present invention, an option is available to put cable, data, and telephone services on the same statement, on separate statements, or any combination of services on one or more statements. Statements are defined at the occurrence level, therefore, any service may be billed on more than one statement.

Statement Codes

Preferably, service categories are assigned default statement codes. These statement codes define whether multiple statements or just a single, converged statement is printed for a customer. Service categories that are assigned the same statement code print on the same statement. For example, if cable and telephone services have the same statement code of 1, then a customer who has both cable and telephone services on his or her account will have one statement. If cable service has a statement code of 1 assigned to it and telephone service has statement code of 2 assigned to it, then a customer who has both cable and telephone services will have two statements.

The number of statements a customer has may be changed by overriding the statement code default assigned to a service category. For example, Sunshine Cable may have its service categories set so all categories print on one statement. However, a customer of Sunshine Cable may decide he or she wants cable and telephone services on separate statements. Using Customer Statement Configuration options, it is possible to add a statement to the customer's account and move either the cable or telephone service category to the new statement, therefore, creating a second statement that the customer will receive; one for cable and one for telephone.

Statement Attribute Codes

A Statement Attribute Code, preferably, has a different combination of services assigned for different customers. The attributes of each statement are defined by the Statement Attribute Code. These attributes include statement messages and the number of lines on a statement. After the Statement Attribute Codes are defined as described above, the service category or combination of service categories that will be using those statement attributes on a particular statement may be assigned.

A/R Codes

Each statement may have one or more A/R codes assigned to it depending on the services that are billed on the statement. A/R codes allow tracking of outstanding accounts receivable, aging balances, and write-offs. For example, Sunshine Cable may have its cable, high-Speed data, and telephone services billed together on customer statements. If Sunshine Cable wants to track how much of its total accounts receivable and write-offs are generated by different groupings of services, it may establish separate A/R codes for each grouping as explained above. The parameters of an A/R Code indicate late fee charges, multiple service providers, and insufficient funds charge amounts.

After defining the A/R Code, a Service Category may be linked to that A/R Code. This link or association defines the valid combinations of service category and A/R code that may be used. The same service category may be used with several A/R Codes and likewise, the same A/R Code may be used with several service categories. For example, the calling card, special circuit, and telephony Service Categories may all be used with A/R Codes such as Regulated Service and Unregulated Service. Other parameters defined for A/R codes are the PAYMENT PRIORITY and PAYMENT

PROCESS TYPE in A/R Service Categories. The PAYMENT PRIORITY, PAYMENT PROCESS TYPE, and MATCH BALANCE fields are used together to determine how the present invention applies payments to a customer's account. Preferably, this procedure is followed any time a payment is processed that is not assigned to a specific A/R Code.

In a preferred embodiment of the present invention, processing works as follows. The customer's statement is examined to see if only one A/R exists. If so, the payment applies to that A/R. If more than one A/R exists and the MATCH BALANCE field is 'Y,' then the customer's statement is checked to see if the amount of the payment matches the balance of either A/R. If so, the payment applies to the A/R with the matched balance. If they both have the same balance, then it is the A/R with the higher priority. If the MATCH BALANCE field is 'N' or the payment does not match either A/R balance, then A/R PAYMENT PRIORITY is considered. The process identifies the PAYMENT PROCESS TYPE identified in the A/R with the highest priority (lowest number value) and uses that to identify how the payment is processed. If PAYMENT PROCESS TYPE = 'R,' then the payment is applied to that A/R and any overpayment is carried forward to the next A/R according to priority. If overpayment is carried forward, payment processing follows the rule of the next A/R in priority. If PAYMENT PROCESS TYPE = 'G,' then the payment is applied to the oldest aging bucket of the A/R with the highest priority. It then applies the payment to the same aging bucket in the next A/R by priority.

For example, a customer has the following A/R:

Table 5					
A/R	1-30	31-60	61-90	PTY	PRC

1	10.00	10.00	10.00	3	G
2	15.00			1	R
3	8.00	8.00	8.00	2	G

The customer makes a payment of \$40. The following A/R results.

Table 6

A/R	1-30	31-60	61-90	PTY	PRC
1	10.00	10.00		3	G
2				1	R
3	8.00	1.00		2	G

The present invention facilitates the production of billing statements for telephone, cable, and data services by supporting the collating, grouping, summarizing, and describing of transactions for a statement. The present invention provides a conceptual layout of a statement that provides a service provider with flexibility in producing statements for its customers. A service provider may group, summarize, and order like statement transactions for a particular service category (e.g., telephone service, cable service, and data service) so that a customer has the option of receiving one or more statements, based on his or her preference, for each service used. Although the present invention has been described in accordance with a preferred embodiment, it is understood that many modifications to the present invention may be made without departing from the scope of the present invention.

What is claimed is:

1. A method for presenting a statement comprising the steps of:
creating a plurality of segments;
creating a plurality of sections, at least one section assigned to each of said segments;
creating at least one statement presentation code;
assigning said at least one statement presentation code to at least one of said plurality of sections; and
producing said statement in accordance with said segments, said sections, and said statement presentation code.
2. The method of claim 1 wherein the step of creating a statement presentation code comprises the steps of:
assigning a summary line for adding transactions to said statement presentation code; and
assigning to said statement presentation code a sorting indicator.
3. The method of claim 1 wherein the step of creating a plurality of segments comprises the steps of:
creating a summary segment;
creating an itemization segment;
creating a usage detail segment; and
creating a tax segment.
4. The method of claim 3 wherein the step of creating a plurality of sections

comprises the steps of:

creating a summary line section for said summary segment;

creating a plurality of occurrence line sections for said itemization and usage detail segments; and

creating a tax line segment for said tax segment.

5. The method of claim 4 further comprising the step of assigning occurrences to said occurrence line sections in said itemization and said usage details segments.
6. The method of claim 5 wherein said occurrences are selected from the group consisting of telephone lines and equipment outlets.
7. A system for configuring statements comprising:
 - a plurality of segments;
 - a plurality of sections;
 - a means for assigning at least one section to each of said segments;
 - at least one statement presentation code;
 - a means for assigning said at least one statement presentation code to at least one of said plurality of sections; and
 - a means for producing said statement in accordance with said segments, said sections, and said statement presentation code.
8. The system of claim 7 wherein a statement presentation code comprises:
 - a summary line for adding transactions to said statement presentation code; and
 - a sorting indicator.
9. The system of claim 7 wherein said plurality of segments comprises:
 - a summary segment;

ABSTRACT OF THE DISCLOSURE

The present invention is a system and method for producing statements that have charges for one or more service categories. The present invention enables a service provider to define which services appear on what statements for any given customer. Using the present invention, it is possible to include telephony, cable, video, and/or data services on the same statement, separate statements, or any combination of services on one or more statements.

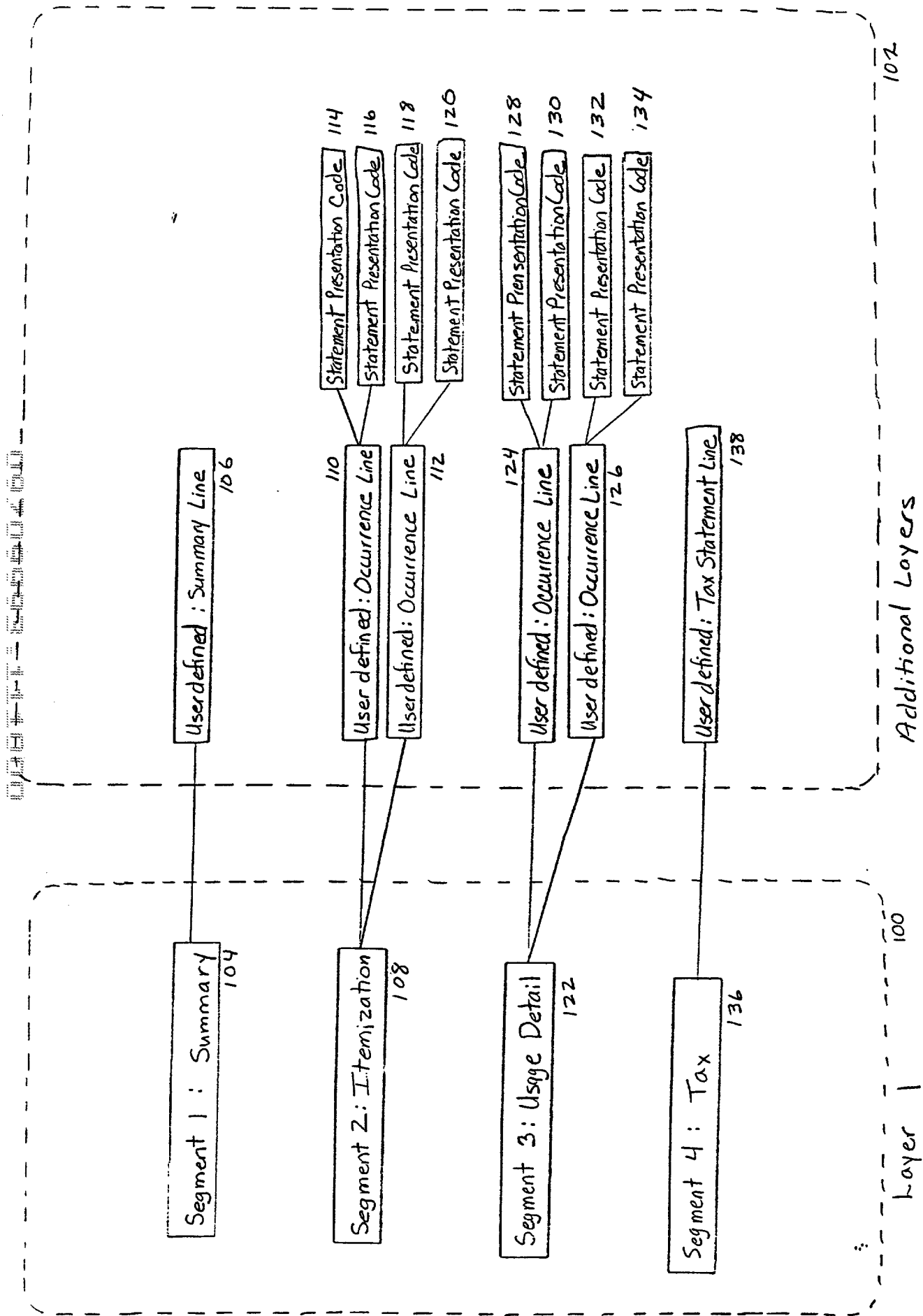


Fig. 1

Fig. 2

CBDIFYJR	DISPLAY	System Parameter Maintenance	Site ID :	001
System Category _____				
Statement Presentation				
Type options, press Enter.				
1=Select 6=Print Individual Category 8=Copy Site ID				
?	Category			
-	Statement Attributes			
-	Statement Attribute Assignment			
-	Statement Presentation Codes			
-	Statement Font Codes			
-	Statement Occurrence Line			
-	Statement Section Codes			
-	Statement Summary Line			
F3=Exit F6=Print ALL Category F15=Menu				

Fig. 3

CBDFNAR	DISPLAY	Statement Attribute Code Maintenance	Site ID :	001
Statement Attribute Code _____				
Type options, press Enter.				
2=Change 3=Copy 4=Delete				
?	Statement Attribute			
Code	Description			
- A	CABLE SERVICE			
- B	CABLE SERVICE			
- C	DIGITAL CABLE MODEM PURCHASE			
- D	ABC@HOME			
- E	ABC@HOME			
- AA	CABLE SERVICE			
- CC	HIGH SPEED DATA			
- DD	DIGITAL CABLE MODEM PURCHASE			
- EE	ABC@HOME			
- AAX	THIS IS A TEST			
- A1	NAME			
- A2				
- CCC	DEFAULT (BILL DESC Q)			
				More...
F3=Exit F9=Add F15=Menu				

Fig. 4

CKE1AJR	CHANGE	Statement Attribute Code Maintenance 1	Site ID :	001	
Statement Attribute Code CAB					
Statement Attribute Desc CABLE ACCOUNTS					
Statement Threshold Number of Lines: Per Statement 1 Per Page 1					
Include the following in Line Count (Y/N):					
Summary	N	Itemization	N	Billing Message	N
Taxes	N	Usage Detail	N	Statement Text	N
Output Taxes by Service Category N (Y/N)					
Include Memo Accounts N (Y/N)					
Check Digit Routine A (A/X)					
Lock Box Scan Line Routine A (A/C/X)					
Previous Balance Stmt Presentation Code 350					
Bucket number to start from when calculating past due amount . . . 1 (1-6)					
				More...	
F3=Exit F15=Menu					

Fig. 5

CKPVAKR	ENTER	Statement Attribute Maintenance 2	Site ID :	001
Statement Attribute Code : 501				
Statement Attribute Desc Telephone				
Credit Balance Accounts (Balance < 0.00):				
Print if the customer's status indicates to print a Credit Bill . . . Y (Y/N)				
Print a final bill, regardless of the customer's status N (Y/N)				
Message: _____				
Debit Balance Accounts (Balance >= 0.00):				
Do Not print statements with a debit balance less than00				
Print a final bill, regardless of the debit balance Y (Y/N)				
Regardless of balance, accounts with other than normal transactions:				
Should be produced for All customers N (Y/N)				
Should be produced for Non-monthly bill mode customers only N (Y/N)				
Message: _____				
More.				
F3=Exit F15=Menu				

Fig. 6

CKPVAMR	ENTER	Statement Attribute Maintenance 3	Site ID :	001
Statement Attribute Code CAB				
Statement Attribute Desc CABLE ACCOUNTS				
Description to print in the statement for:				
Previous month's balance				
First Statement _____				
Subsequent Statements _____				
Payments				
Full Payment _____				
Partial Payment _____				
Deposit Payment _____				
Services without a description _____				
Merged Prorate Description				
First Statement _____				
Subsequent Statements _____				
More...				
F3=Exit F15=Menu				

Fig. 7

CKPVAQR	ENTER	Statement Attribute Maintenance 4	Site ID :	001
Statement Attribute Code CAB				
Statement Attribute Desc CABLE ACCOUNTS				
Direct Debit Messages				
Message to print if statements are:				
Sent Each Month _____				
Pre-note status _____				
Message to print if statements are not sent monthly and				
Other than a normal transaction occurs: _____				
Maximum amount allowed:00				
Message to print if Maximum Amount is exceeded: _____				
Minimum Amount allowed:00				
Message to print if minimum amount is not met: _____				
F3=Exit F15=Menu				

Fig. 8'

CXEFEXR		CHANGE		Statement Attribute Assignment Maintenance		Site ID : 001	
Service Cat Combo:							
Stmt	Attr	Service	Category	Combo			
---			C				
---			CD				
---			CDL				
---			CDLS				
---			CDLST				
---			CDLT				
---			CDS				
---			CDST				
---			CDT				
---			CL				
---			CLS				
---			CLST				
---			CLT				
---			CS				
---			CST				
F3=Exit F15=Menu				More...			

Fig. 9

CBDFNAR		DISPLAY		Statement Presentation Code Maintenance		Site ID : 001	
Presentation Code ____							
Type options, press Enter.							
2=Change 3=Copy 4=Delete P=Paragraph							
?	Prstn	Presentation					
	Code	Description					
-	A	CABLE SERVICE					
-	B	CABLE SERVICE					
-	C	DIGITAL CABLE MODEM PURCHASE					
-	D	ABC@HOME					
-	E	ABC@HOME					
-	AA	CABLE SERVICE					
-	CC	HIGH SPEED DATA					
-	DD	DIGITAL CABLE MODEM PURCHASE					
-	EE	ABC@HOME					
-	A1	NANE					
-	CCC	DEFAULT (BILL DESC Q)					
F3=Exit F9=Add F15=Menu				More...			

Fig. 10

CXELHDR		ADD		Statement Presentation Code		Site ID : 001	
Stmt Presentation Code . : SLG _____							
Header _____							
Subtotal _____							
Footer _____							
Section Code ____							
Summary Line ____							
Sort Within Occurrence _				Print Usage Detail Flag N			
If No, Sort Occurrence Ctg/Seq# _				Discount/Retail for Usage D			
Stmt Presentation for Prorates . . ____							
Font Codes: Header ____							
Detail ____							
Footer ____							
Offset Spaces: Descriptions (from left) ____				Lines to Skip: Before Header _			
Amounts (from right) . ____				After Footer _			
F3=Exit F15=Menu F18=Paragraph							

Fig. 11,

CBE3M7R ADD Statement Presentation Code Maintenance 1 Site ID : 001	
Presentation Code : 009	
Presentation Description	
Billing descriptions to use on the bills and ledger (M/P/R/S/Q/G)	
M/P/Q/R/S/G	Print zero rated primary services? (Y/N)
Q/R/S/G	Itemize additional outlet charges? (Y/N)
Q/R/S/G	Print zero rated additional outlet counts (Y/N)
Q/R/G	Print additional rates for services (Y/N)
Q/R/G	Include a la carte rates in the paragraph (Y/N)
Q/G	Insertion character to use to join the rate to the short description
Q/R/G	Print summary lines after paragraph exit line? (Y/N)
More...	
F3=Exit F15=Menu	

Fig. 12

CBE3M7R ADD Statement Presentation Code Maintenance 2 Site ID : 001	
Presentation Code : 009	
Presentation Description :	
Q/R/G	Number of Matrix Description Lines to Print
F/Q/R/G	Intro Line
F/Q/R/G	Exit Line
Q/R/G	Summary lines to print after the paragraph exit line.
Q/R/G	Alternate summary line if no applicable discount.
More...	
F3=Exit F15=Menu	

Fig. 13

CBE3M7R ADD Statement Presentation Code Maintenance 3 Site ID : 001	
Presentation Code : 009	
Presentation Description :	
Q/R/S/G	Additional outlet descriptions for premium services.
Paragraph	Detail
Q/R/S/G	Additional outlet descriptions for auxiliary services.
Paragraph	Detail
Bottom	
F3=Exit F15=Menu	

Fig. 14

CXEFGRR	CHANGE	Statement Font Code Maintenance	Site ID :	001
Font Code .				
Type options, press Enter.				
4=Delete				
?				
Font	Code	Description		
-	B	Bold		
-	B1	Bold, Italics		
-	B1	Bold, Large		
-	I	Italic		
-	U	Underline		
-	U1	Underline, bold, large print		
F3=Exit F9=Add F15=Menu				

Fig. 15

CXDFGTR	DISPLAY	Statement Occurrence Line Maintenance	Site ID :	001
Service Category				
Type options, press Enter.				
2=Change 4=Delete				
Svc				
?				
Ctg	Itemization Header			
-	C	Cable Bill		
-	D	High Speed Data User		
-	L	Calling Card # &L		
-	S	Circuit ID &I		
-	T	Phone Bill		
F3=Exit F9=Add F15=Menu				

Fig. 16

CXE1GWR	ADD	Statement Presentation Occurrence	Site ID :	001
Service Category Code .				
F3=Exit F15=Menu				

Fig. 17

CXE1GWR	CHANGE	Statement Presentation Occurrence	Site ID :	001
Service Category Code : C Cable				
Itemization Segment				
Header Cable Bill				
Subtotal				
Footer				
Usage Detail Segment				
Header				
Subtotal				
Footer				
Font Codes:				
Header				
Footer				
Offset Number of Spaces:				
Descriptions (from left)				
Amounts (from right)				
Number of Lines to Skip:				
Before Header				
After Footer				
F3=Exit F15=Menu				

Fig. 18

CKDFGYR	DISPLAY	Statement Section Maintenance	Site ID :	001
Section Code				
Type options, press Enter.				
2=Change 3=Copy 4=Delete				
? Section				
Code Header Description				
1 Statement Payments & Adjustments				
101 Telephone Services				
201 Video Services				
301 High Speed Data Services				
F3=Exit F9=Add F15=Menu				

Fig. 19

CXE1GZR	ADD	Statement Presentation Section	Site ID :	001
Section Code .				
F3=Exit F15=Menu				

Fig. 20

CXE1GZR	ADD	Statement Presentation Section	Site ID :	001
Section Code 128				
Header				
Subtotal				
Footer				
Font Codes:				
Header				
Footer				
Offset Number of Spaces:				
Descriptions (from left)				
Amounts (from right)				
Number of Lines tSkip:				
Before Header				
After Footer				
F3=Exit F15=Menu				

Fig. 21

CXEFHFR		CHANGE	Statement Summary Lines	Site ID :	001
Summary Line Number .					
Type options, press Enter.					
4=Delete					
?	Sum				
	Line	Description		Section	Code
-	3	Cable		101	
-	7	Telephone		7	
-	123	High Speed Data		66	
-	124	Special Circuits		1	
-	888	Calling Cards		1	
F3=Exit F9=Add F15=Menu					

Fig. 22

CXEFHFR		ADD	Statement Summary Lines	Site ID :	001
Type options, press Enter.					
4=Delete					
?	Sum				
	Line	Description		Section	Code
-	---	-----		---	
-	---	-----		---	
-	---	-----		---	
-	---	-----		---	
-	---	-----		---	
-	---	-----		---	
F3=Exit F9=Change F15=Menu					

Fig. 23

CBDFNIR		DISPLAY	Method Of Payment Maintenance
Call Center Grouping Code : 01			
Method of Payment Code . . .			
Type options, press Enter.			
2=Change 3=Copy 4=Delete			
?	Code	Description	
-	1	CASH	
-	2	CHECK	
-	3	MONEY ORDER	
-	5	LOCKBOX	
-	7	DIRECT DEBIT	
-	8	GIFT CERTIFICATE	
-	10	MASTERCARD	
-	11	VISA-13	
-	12	DISCOVER	
-	14	VISA-16	
F3=Exit F9=Add F15=Menu			

```

CBE1QOR      ADD      Customer Method of Payment Code Maint
Call Center Grouping Code . . . . . : 01
Customer Method of Payment Code . . : 555
Description . . . . . _____

Category Call Center Grouping Code : 01
Payment Code Category . . . . . _____
Vendor Call Center Grouping Code . . : 01
MOP Processing Vendor . . . . . _____

Method of Payment Acct Nbr Required
Method of Payment Acct Nbr Validation      -
Method of Payment Acct Maximum Length      -      Opr. __ (EQ/LT/LE)
Method of Payment Acct Minimum Length      -      Opr. __ (GT/GE)

Default Stmt Prsn Code . . . . . _____

Counter Cash Allowed . . . . . - (Y/N)
Check Number Required . . . . . - (Y/N)
Track History . . . . . - (Y/N)
Prenote Required . . . . . - (Y/N)

F3=Exit  F10=Stmt Prsn Cds  F15=Menu

```

```
CXEFKTR      CHANGE      Maintain Stmt Prsn Code for MOP      Site ID :      001
Site 215     MOP Code    2

Type options, press Enter.
4=Delete

?   Srv       AR         Stmt      Stmt
   Ctg        Code       Prsn      Presentation Desc
                               Code
-   G          _1        CAB        CABLE SERVICE
-   I          _5        TEL        TELEPHONE SERVICE
-   -          ---        --
-   -          ---        --
-   -          ---        --
-   -          ---        --
-   -          ---        --
-   -          ---        --
-   -          ---        --
-   -          ---        --
-   -          ---        --
```

F3=Exit F9=Add F15=Menu

More...

```

CXDPFA3R      DISPLAY      Usage Type Maintenance      Site ID :      001
Usage Type      _____

Type options, press Enter.
C=Carrier Attr  2=Change  4=Delete

Usage
?  Type      Description      Stmt      Stmt      AR      G/L
   Type      Description      Pres      Code      Code      Minor
- 00001      Local Call - Direct Dial      605      DD      3      789
- 00002      Local Calling Card      605      CC      3      791
- 00003      Local Operator Person-to-Person      605      PP      3      795
- 00004      Local Operator Collect      605      CC      3      795
- 00005      Local Op Station-to-Station Type 2      605      SN      3      789
- 00006      Local Op Station-to-Station Type 1      605      SN      3      789
- 00007      Intrastate Direct Dial      625      DD      3      775
- 00008      Intrastate Calling Card      625      CC      3      796
- 00009      Intrastate Op Person-to-Person      625      PP      3      792
- 00010      Intrastate Operator Collect      625      CC      3      792
- 00011      Intrastate Station-to-Station      625      SN      3      775
- 00012      Intrastate Op Station-to-Station      625      SN      3      792

F3=Exit      F9=Add      F15=Menu

```

Fig. 27

CXE1KMR	ADD	Usage Type Maintenance	Site ID :	001
Usage Type _____				
F3=Exit F15=Menu				

Fig. 28

CXE1KMR	ADD	Usage Type Maintenance	Site ID :	001
Usage Type TEST1				
Description . . . _____				
AR Code _____				
Presentation Code _____				
Tax Group Code _____				
G/L Minor Nbr . _____				
Stmt Rate Code _____				
F3=Exit F15=Menu				

Fig. 29

CXEFLCR	CHANGE	Usage Plan Maintenance	Site ID :	001
Usage Plan ID .				
Type options, press Enter.				
C=Carrier Override 4=Delete				
? Plan	Plan		Stm	Stm
ID	Description		Prs	Ind
- 00099	Direct Dial - Local		430	Y
- 12345	Direct Dial - Long Distance		455	N
				Bottom
F3=Exit F9=Add F15=Menu				

Fig. 30

CXEFLCR	ADD	Usage Plan Maintenance	Site ID :	001
Type options, press Enter.				
C=Carrier Override 4=Delete				
? Plan	Plan		Stm	Stm
ID	Description		Prs	Ind
- _____	_____		_____	_____
- _____	_____		_____	_____
- _____	_____		_____	_____
- _____	_____		_____	_____
- _____	_____		_____	_____
				More...
F3=Exit F9=Change F15=Menu				

Fig. 31

CXEFLIR	CHANGE	Usage Plan - Carrier Override	Site ID : 001
Plan 12345			
Carrier _____			
Type options, press Enter.			
4=Delete			
?	Carrier	Carrier	Stmt
	ID	Description	Pres
-	00562	LOCAL Telecom	405
-	00071	Universal Telecom	TEL
F3=Exit F9=Add F15=Menu			Bottom

Fig. 32

CXEFLIR	ADD	Usage Plan - Carrier Override	Site ID : 001
Plan 5			
Type options, press Enter.			
4=Delete			
?	Carrier	Carrier	Stmt
	ID	Description	Pres
-	_____	_____	_____
-	_____	_____	_____
-	_____	_____	_____
-	_____	_____	_____
-	_____	_____	_____
F3=Exit F9=Change F15=Menu			More...

Please type a plus sign (+) inside this box ----> ☐

PTO/SB/01 (12-97)
Approved for use through 9/30/00 OMB 0651-0032
Patent and Trademark Office, U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

DECLARATION FOR UTILITY OR DESIGN PATENT APPLICATION (37 CFR 1.63) <input type="checkbox"/> Declaration Submitted with Initial Filing OR <input checked="" type="checkbox"/> Declaration Submitted after Initial Filing (surcharge (37 CFR 1.16 (e)) required)	Attorney Docket Number	CON1350-011B
	First Named Inventor	Brown et al.
	COMPLETE IF KNOWN	
	Application Number	/
	Filing Date	November 10, 2000
	Group Art Unit	
	Examiner Name	

As a below named inventor, I hereby declare that:

My residence, post office address, and citizenship are as stated below next to my name

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

SYSTEM AND METHOD FOR STATEMENT PRESENTATION
(Title of the Invention)

the specification of which
☐ is attached hereto
OR
☒ was filed on (MM/DD/YYYY) **11/10/2000** as United States Application Number or PCT International Application Number and was amended on (MM/DD/YYYY) (if applicable)

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment specifically referred to above

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56.

I hereby claim foreign priority benefits under 35 U.S.C. 119(a)-(d) or 365(b) of any foreign application(s) for patent or inventor's certificate, or 365(a) of any PCT international application which designated at least one country other than the United States of America, listed below and have also identified below, by checking the box, any foreign application for patent or inventor's certificate, or of any PCT international application having a filing date before that of the application on which priority is claimed.

Prior Foreign Application Number(s)	Country	Foreign Filing Date (MM/DD/YYYY)	Priority Not Claimed	Certified Copy Attached?	
				YES	NO
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

☐ Additional foreign application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto:

I hereby claim the benefit under 35 U.S.C. 119(e) of any United States provisional application(s) listed below

Application Number(s)	Filing Date (MM/DD/YYYY)	
60/165,296	November 12, 1999	<input type="checkbox"/> Additional provisional application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto.

[Page 1 of 2]

Burden Hour Statement: This form is estimated to take 0.4 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Please type a plus sign (+) inside this box → ☐

PTO/SB/01 (12-97)
Approved for use through 9/30/00 OMB 0651-0032
Patent and Trademark Office, U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

DECLARATION -- Utility or Design Patent Application

I hereby claim the benefit under 35 U.S.C. 120 of any United States application(s), or 365(c) of any PCT international application designating the United States of America, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT International application in the manner provided by the first paragraph of 35 U.S.C. 112, I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application

U.S. Parent Application or PCT Parent Number	Parent Filing Date (MM/DD/YYYY)	Parent Patent Number (if applicable)

☐ Additional U.S. or PCT international application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto.

As a named inventor, I hereby appoint the following registered practitioner(s) to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith:

☒ Customer Number

OR

☐ Registered practitioner(s) name/registration number listed below

Name	Registration Number	Name	Registration Number
			08698
		PATENT, TRADEMARK OFFICE	

☐ Additional registered practitioner(s) named on supplemental Registered Practitioner Information sheet PTO/SB/02C attached hereto

Direct all correspondence to: ☒ Customer Number or Bar Code Label  OR ☐ Correspondence address below

Name	08698				
Address	PATENT, TRADEMARK OFFICE				
Address					
City		State		ZIP	
Country		Telephone		Fax	

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Name of Sole or First Inventor:

☐ A petition has been filed for this unsigned inventor

Given Name (first and middle (if any))		Family Name or Surname	
Matthew		Brown	
Inventor's Signature		Date	
Residence: City	State	Country	Citizenship
Post Office Address			
Post Office Address			
City	State	ZIP	Country

☒ Additional inventors are being named on the 1 supplemental Additional Inventor(s) sheet(s) PTO/SB/02A attached hereto

Please type a plus sign (+) inside this box → ☐

PTO/SB/02A (3-87)
Approved for use through 9/30/98. OMB 0651-0032
Patent and Trademark Office, U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

DECLARATION

ADDITIONAL INVENTOR(S) Supplemental Sheet

Page 1 of 1

Name of Additional Joint Inventor, if any:		<input type="checkbox"/> A petition has been filed for this unsigned inventor					
Given Name (first and middle [if any])				Family Name or Surname			
Marc				Jazvac			
Inventor's Signature						Date	
Residence: City		State		Country		Citizenship	
Post Office Address							
Post Office Address							
City		State		ZIP		Country	
Name of Additional Joint Inventor, if any:		<input type="checkbox"/> A petition has been filed for this unsigned inventor					
Given Name (first and middle [if any])				Family Name or Surname			
Inventor's Signature						Date	
Residence: City		State		Country		Citizenship	
Post Office Address							
Post Office Address							
City		State		ZIP		Country	
Name of Additional Joint Inventor, if any:		<input type="checkbox"/> A petition has been filed for this unsigned inventor					
Given Name (first and middle [if any])				Family Name or Surname			
Inventor's Signature						Date	
Residence: City		State		Country		Citizenship	
Post Office Address							
Post Office Address							
City		State		ZIP		Country	

Burden Hour Statement: This form is estimated to take 0.4 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231 DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO Assistant Commissioner for Patents, Washington, DC 20231